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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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Complete if Known	
Application Number	09/905,718
Filing Date	05/16/2001
First Named Inventor	Willson et al.
Group Art Unit	1762
Examiner Name	Pianalto, Bernard D.
Attorney Docket Number	PA27-02Q12

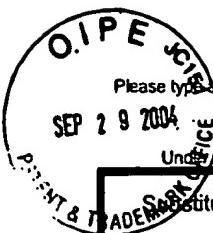
### U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
VJ	B1	4,070,116		Frosch et al.	01-24-1978	
VJ	B2	4,600,309		Fay	07-15-1986	
	B3	4,848,911		Uchida et al.	07-18-1989	
	B4	5,074,667		Miyatake	12-24-1991	
	B5	5,148,036		Matsugu et al.	09-15-1992	
	B6	5,148,037		Suda et al.	09-15-1992	
	B7	5,151,754		Ishibashi et al.	09-29-1992	
	B8	5,179,863		Uchida et al.	01-19-1993	
	B9	5,376,810		Hoenk et al.	12-27-1994	
	B10	5,424,549		Feldman	06-13-1995	
	B11	5,670,415		Rust	09-23-1997	
	B12	5,743,998		Park	04-28-1998	
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	B14	5,948,219		Rohner	09-07-1999	
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	B16	6,150,680		Eastman et al.	11-21-2000	
	B17	6,326,627	B1	Putvinski et al.	12-04-2001	
	B18	2002/0132482	A1	Chou	09-19-2002	
	B19	2002/0167117	A1	Chou	11-14-2002	
	B20	6,482,742	B1	Chou	11-19-2002	
	B21	6,534,418	B1	Plat et al.	03-18-2003	
	B22	6,541,360	B1	Plat et al.	04-01-2003	
	B23	2003/0081193	A1	White et al.	05-01-2003	
	B24	2003/0080471	A1	Chou	05-01-2003	
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	B26	5,468,542		Crouch	11-21-1995	
	B27	5,366,851		Novembre	11-22-1994	
	B28	5,362,606		Hartney et al.	11-08-1994	
	B29	5,324,683		Fitch et al.	06-28-1994	
	B30	5,212,147		Sheats	05-18-1993	
	B31	5,458,520		DeMercurio et al.	10-17-1995	
	B32	5,453,157		Jeng	09-26-1995	
	B33	5,439,766		Day et al.	08-08-1995	
	B34	5,431,777		Austin et al.	07-11-1995	
Examiner Signature				Date Considered		5/16/01

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		Number	Kind Code <sup>2</sup> (if known)			
	B35	5,422,295		Choi et al.	06-06-1995	
	B36	5,421,981		Leader et al.	06-06-1995	
	B37	5,417,802		Obeng	05-23-1995	
	B38	5,380,474		Rye et al.	01-10-1995	
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Examiner Name	Pianalto, Bernard D.
Attorney Docket Number	PA27-02Q12

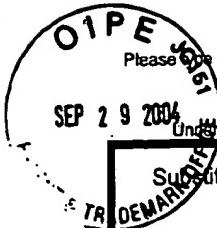
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		Number	Kind Code <sup>2</sup> (if known)			
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	B70	5,071,694		Uekita et al.	12-10-1991	
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	B101	6,632,742	B2	Yang et al.	10-14-2003	
	B102	6,635,581	B2	Wong	10-21-2003	
Examiner Signature				Date Considered		<i>Speller</i>

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## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Sheet

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Substitute for form 1449A/PTO				<b>Complete if Known</b>	
				<b>Application Number</b>	09/905,718
				<b>Filing Date</b>	05/16/2001
				<b>First Named Inventor</b>	Willson et al.
				<b>Group Art Unit</b>	1762
				<b>Examiner Name</b>	Pianalto, Bernard D.
				<b>Attorney Docket Number</b>	PA27-02Q12
Sheet	4	of	7		

U.S. PATENT DOCUMENTS

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## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Sheet

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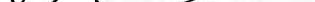
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**Complete if Known**

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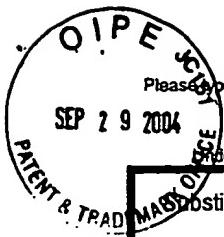
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Substitute for form 1449B/PTO				Complete if Known	
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				Group Art Unit	1762
				Examiner Name	Pianalto, Bernard D.
Sheet	6	of	7	Attorney Docket Number	PA27-02Q12

#### OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

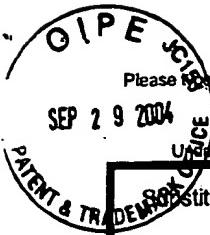
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
VW	B122	Abstract of Japanese Patent 63-138730 No date available	
	B123	Abstract of Japanese Patent 55-88332 " " "	
	B124	Abstract of Japanese Patent 57-7931 " " "	
	B125	Abstract of Japanese Patent 02-92603. " " "	
	B126	Translation of Japanese Patent 02-92603. " " "	
	B127	Abstract of Japanese Patent 02-24848. " " "	
	B128	Translation of Japanese Patent 02-24848. " " "	
	B129	HEIDARI et al., "Nanoimprint Lithography at the 6 in. Wafer Scale," Journal of Vacuum Science Technology, Nov/Dec 2000, pp. 3557-3560, vol. B, no. 18(6)	
	B130	NERAC.COM Retro Search, "Reduction of Dimension of Contact Holes", August 31, 2004 no page numbers	
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Sheet 1 of 5

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	D1	5,425,848		Haisma et al.	6/20/1995	
	D2	6,309,580	B1	Chou	10/30/2001	
	D3	6,517,977	B2	Resnick et al.	2/11/2003	
	D4	6,696,220	B2	Bailey et al.	2/24/2004	
	D5	2002/0177319	A1	Chou	11/28/2002	
	D6	6,713,238	B1	Chou et al.	3/30/2004	
	D7	2004/0009673	A1	Sreenivasan et al.	1/15/2004	
	D8	6,518,189	B1	Chou	2/11/2003	
	D9	2003/0080471	A1	Chou	5/1/2003	
	D10	2004/0036201	A1	Chou et al.	2/26/2004	
	D11	2004/0192041	A1	Jeong et al.	9/30/2004	
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	D13	6,809,356	B2	Chou	10/26/2004	
	D14	2004/0197843	A1	Chou et al.	10/7/2004	
	D15	2004/0156108	A1	Chou et al.	8/12/2004	
	D16	2004/0137734	A1	Chou et al.	7/15/2004	
	D17	2004/0131718	A1	Chou et al.	7/8/2004	
	D18	2004/0118809	A1	Chou et al.	6/24/2004	

Examiner Signature

Date Considered

*Smith*

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## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Sheet 2 of 5

APPLICATION NUMBER	09/905,718
FILING DATE	05/16/2001
FIRST NAMED INVENTOR	Willson et al.
Group Art Unit	1762
Examiner Name	Meeks, Timothy H.
Attorney Docket Number	PA27-02V12

#### **U.S. PATENT DOCUMENTS**

*\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.* <sup>1</sup> *Applicant's unique citation designation number (optional).* <sup>2</sup> *See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.* <sup>3</sup> *Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).* <sup>4</sup> *For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.* <sup>5</sup> *Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.* <sup>6</sup> *Applicant is to place a check mark here if English language Translation is attached.*

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## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

3

of

**APPLICATION NUMBER** 09/905 718

ETLING DATE 05/16/2001

FIRST NAMED INVENTOR Wilson et al

Group Art Unit 1762

**Examiner Name** Maeks, Timothy H.

Attorney Docket Number PA27-02/V12

## **FOREIGN PATENT DOCUMENTS**

**Examiner  
Signature**

**Date  
Considered**

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>					
Sheet	4	of	5	APPLICATION NUMBER	09/905,718
				FILING DATE	05/16/2001
				FIRST NAMED INVENTOR	Willson et al.
				Group Art Unit	1762
				Examiner Name	Meeks, Timothy H.
				Attorney Docket Number	PA27-02V12

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>

V	D42	Chou, Nanoimprint Lithography and Lithographically Induced Self-Assembly, MRS Bulletin, pp. 512 - 517, 7/1/2001	
	D43	Choi et al., Design of Orientation Stages for Step and Flash Imprint Lithography, Precision Engineering, pp. 192 - 199, 1/1/2001	
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	D46	Chou et al., Ultrafast and Direct Imprint of Nanostructures in Silicon, Nature, Col. 417, (June 2002), pp. 835-837, 6/1/2002	
	D47	Chou et al., Nanoimprint Lithography, Journal of Vacuum Science Technoloy B 14(16), pp. 4129-4133, 11/1/1996	
	D48	Colburn et al., Development and Advantages of Step-and-Flash Lithography, Solid State Technology, 7/1/2001 <i>no page numbers</i>	
	D49	Colburn et al., Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers, Journal of Vacuum Science Technology, Vol b. 19(6), 11/1/2001 <i>no page numbers</i>	
V	D50	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	

Examiner Signature	<i>[Signature]</i>	Date Considered	<i>[Signature]</i>
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## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Sheet 5 of

<i><b>Complete if Known</b></i>	
<b>APPLICATION NUMBER</b>	09/905,718
<b>FILING DATE</b>	05/16/2001
<b>FIRST NAMED INVENTOR</b>	Willson et al.
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Attorney Docket Number	PA27-02V12

#### **OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

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